

METHOW RIVER BASIN

12449500 METHOW RIVER AT TWISP, WA

LOCATION.--Lat 48°21'55", long 120°06'54", in NE 1/4 NW 1/4 sec.17, T.33 N., R.22 E., Okanogan County, Hydrologic Unit 17020008, on left bank, 0.25 mi downstream from Twisp River, 0.3 mi east of center of Twisp, and at mile 40.

DRAINAGE AREA.--1,301 mi².

WATER DISCHARGE RECORDS

PERIOD OF RECORD.--June 1919 to September 1962, April 1991 to current year. Monthly discharge only for some periods, published in WSP 1316. Miscellaneous measurements in 1967, 1970, 1976, 1978-90. For 1976, 1978-80 published as "at site 2.7 mi downstream", in error.

GAGE.--Water-stage recorder. Elevation of gage is 1,580 ft above NGVD of 1929, from topographic map. Prior to Oct. 3, 1919, several staff gages in the immediate vicinity at different datum. Oct. 3, 1919 to Sept. 30, 1929, and Oct. 31 to Nov. 6, 1933, chain gage on road bridge 40 ft upstream at same datum as staff gages. Nov. 7 to Dec. 18, 1933, staff gage at present site at different datum.

REMARKS.--Records good except for estimated daily discharges, which are fair. No known regulation. Numerous diversions for irrigation upstream from station.

AVERAGE DISCHARGE.--54 years (water years 1920-62, 1992-2002), 1,340 ft³/s, 970,800 acre-ft/yr. Includes discharge for water years 1930-34, which were estimated for WSP 1316.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 40,800 ft³/s May 29, 1948, gage height, 12.94 ft, in gage well, from rating curve extended above 18,000 ft³/s on basis of slope-area measurement of peak flow; minimum observed, 134 ft³/s Sept. 4, 5, 1926, Sept. 9, 10, 1929, but may have been less during period of ice effect Jan. 6 to Mar. 4, 1937.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 5,200 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
May 21	1000	6,440	4.02	June 16	0500	*10,300	*5.51
May 30	0630	9,790	5.32	June 23	0630	6,590	4.08
June 6	0630	9,080	5.06				

Minimum daily discharge, 197 ft³/s Oct. 1.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	197	233	271	228	228	313	579	2290	7840	3750	811	314
2	202	233	271	230	229	314	595	2990	7550	3210	741	310
3	202	228	267	228	231	310	591	3230	7550	2890	691	307
4	202	228	259	225	226	313	603	2980	7800	2800	656	299
5	202	228	259	224	228	319	651	2690	8390	2560	622	296
6	206	228	259	225	226	316	734	2420	8580	2350	605	295
7	212	226	254	230	228	318	826	2210	6950	2330	598	296
8	217	224	254	243	229	315	877	2020	5720	3220	568	294
9	235	222	252	264	223	310	899	1890	4860	3200	533	289
10	254	217	248	260	224	324	912	1750	4560	2790	511	280
11	254	215	248	251	223	328	958	1680	5100	2920	501	272
12	254	215	248	248	210	332	1040	1770	6290	3020	487	263
13	251	215	248	245	209	324	1260	2160	7380	2740	470	257
14	248	234	242	242	224	317	2060	2730	8730	2700	462	254
15	248	261	242	227	220	315	2230	2930	9410	2470	457	252
16	242	272	242	224	218	324	1960	2870	9590	2130	445	243
17	240	284	247	221	224	317	1740	3100	7820	2010	432	237
18	237	284	248	215	220	311	1570	3530	6680	1870	416	237
19	237	277	241	230	222	315	1470	3620	5560	1760	401	236
20	236	277	e220	237	222	318	1440	4660	5060	1630	388	236
21	233	277	e225	241	228	309	1470	6270	5210	1460	384	236
22	233	280	e235	226	237	309	1560	5640	5780	1350	380	237
23	234	284	248	221	336	310	1590	4850	6270	1280	365	237
24	237	284	248	234	341	323	1520	4440	5900	1260	352	235
25	236	278	244	e245	292	350	1480	4480	5470	1220	355	235
26	233	277	e230	e235	300	370	1460	4830	5700	1200	396	238
27	233	277	e215	e225	315	387	1430	5410	6250	1160	386	227
28	233	277	233	e215	327	407	1390	6980	5650	1050	367	224
29	233	274	233	e205	---	435	1440	8960	5160	981	348	224
30	229	271	233	224	---	452	1680	9380	4600	928	332	223
31	228	---	228	235	---	516	---	8770	---	875	325	---
TOTAL	7138	7580	7592	7203	6840	10521	38015	123530	197410	65114	14785	7783
MEAN	230	253	245	232	244	339	1267	3985	6580	2100	477	259
MAX	254	284	271	264	341	516	2230	9380	9590	3750	811	314
MIN	197	215	215	205	209	309	579	1680	4560	875	325	223
AC-FT	14160	15030	15060	14290	13570	20870	75400	245000	391600	129200	29330	15440

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1919 - 2002, BY WATER YEAR (WY)

	415	471	402	314	318	434	1589	4952	4946	1766	502	308
MEAN	415	471	402	314	318	434	1589	4952	4946	1766	502	308
MAX	1383	1183	1205	578	958	1773	7692	9515	11030	4392	1280	727
(WY)	1960	1934	1996	1935	1935	1934	1934	1957	1950	1954	1999	1959
MIN	189	234	222	178	183	204	180	1546	846	289	162	148
(WY)	1937	1940	1926	1937	1929	1936	1929	1920	1926	1926	1926	1929

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR	FOR 2002 WATER YEAR	WATER YEARS 1919 - 2002
ANNUAL TOTAL	183365	493511	
ANNUAL MEAN	502	1352	1360
HIGHEST ANNUAL MEAN			2231
LOWEST ANNUAL MEAN			467
HIGHEST DAILY MEAN	4800	May 25	9590
LOWEST DAILY MEAN	177	Sep 15	197
ANNUAL SEVEN-DAY MINIMUM	181	Sep 13	203
ANNUAL RUNOFF (AC-FT)	363700		978900
10 PERCENT EXCEEDS	1270		4840
50 PERCENT EXCEEDS	233		313
90 PERCENT EXCEEDS	198		224

e Estimated